

From: Lindstrom, Andrew [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=04BF7CF26AA44CE29763FBC1C1B2338E-LINDSTROM, ANDREW]
Sent: 9/17/2020 3:15:01 PM
To: Tom Bruton [tom@greensciencepolicy.org]
Subject: RE: Six Classes Retreat working group next steps

Tom,

I think I just added this as a draft introduction:

Introduction

There are many recent examples of how current regulatory controls in the US and elsewhere have failed to prevent the production and eventual release of highly hazardous compounds into the environment. Unfortunately, it is still common for compounds to go through regulatory review and approval and to find out later that production and use has led to emissions which have caused significant deleterious impacts in human populations and/or in the environment.

This situation arises from a number of converging causes: the sheer number of new compounds being produced; the basic dysfunction of TSCA and other outdated regulations which tend to place the burden of testing on underfunded government agencies; the increased sophistication of measurement and surveillance techniques which makes it easier to track substances in the environment and establish relationships with specific health conditions; the high degree of proof of harm required to enact meaningful regulatory controls; the lack of mechanisms to hold polluting parties accountable for their actions; the producer's tactic of adding slight structural changes to molecules already known to be hazardous giving rise to new materials with similar chemical characteristics but which specifically lack data on toxicity and risk (so called "regrettable substitutions");

As it is apparent that current policies are not adequate to prevent these unnecessary hazardous situations, it is clear that new regulatory approaches need to be considered.

The "essential use" concept, where the production of highly hazardous compounds is only authorized by a regulatory body when a specific use for that material is determined to be "essential" for the health and safety of a functioning of society has been applied in a number of historical contexts such as the Montreal Protocol on Substances that Deplete the Ozone Layer, the Stockholm Convention on Persistent Organic Pollutants, and many other specific regional regulatory efforts.

In this paper we explore the idea of limiting the production of all highly hazardous and persistent anthropogenic substances to those uses determined to be "essential". This line of thought is fundamentally protective and consistent with previously articulated frameworks (precautionary principle) that have been used to guide optimal policy development.

We start by summarizing some of the key cases where the concept has been used as a central element of successful international conventions and other regulations which have been used to limit the production and use of highly hazardous materials. We summarize the specific details of these efforts and analyze how essentiality has been defined and interpreted in each context. We detail how effective these efforts have been in limiting harm and explore specific shortcomings in the implementation of essentiality which have hindered progress in each case.

We further discuss how the "essential use" concept is being applied in new legislation in China to restrict the production of "high-hazard" compounds and how it may be applied for the regulation of poly and perfluoroalkyl substances (PFAS) in the European Union (EU).

From this analysis we propose a working definition of the "essential use" concept and briefly describe how it could be used in a more general context to inform more protective legislation in the future.

Finally, we explore how the "essential use" concept can be used to support related developing ideas such as regulation of compounds by class (class concept) and regulation of materials based on persistence alone. We discuss how these ideas can be combined and applied to help provide a framework to control climate change, the proliferation of plastics, petrochemicals, and other major threats to the global environment.

From: Tom Bruton <tom@greensciencepolicy.org>

Sent: Sunday, September 13, 2020 7:20 PM

To: Miriam Diamond <miriam.diamond@utoronto.ca>; pamela@akaction.org; Anna Reade <areade@nrdc.org>; Liz Harriman <liz@turi.org>; Rebecca Sutton <rebeccas@sfei.org>; Lindstrom, Andrew <Lindstrom.Andrew@epa.gov>; Arlene Blum <arleneb@lmi.net>; Dave Andrews <dandrews@ewg.org>; DeWitt, Jamie <DEWITTJ@ecu.edu>; Seth Fernandez <seth@greensciencepolicy.org>; Wang Zhanyun (IfU, ESD) <zhanyun.wang@ifu.baug.ethz.ch>

Subject: Re: Six Classes Retreat working group next steps

Dear all,

I hope you are doing well.

Our next call to discuss the paper on expanding the essential uses concept is scheduled for this Thursday, Sept. 17, from 9AM PDT / noon EDT / 6PM CEST. The Zoom link is below. Can you please let me know if that time won't work for you?

As a reminder, here is the list of who volunteered for what last time. If you have managed to write some bullets or sentences, please paste them into [the google doc](#) by Tuesday night so that the group can review them before the call.

Pam & Miriam - Stockholm Convention

Anna and Becky - California Safer Consumer Products

Anna - Minamata Convention

Andy - Introduction

Liz & Jamie - Montreal Protocol

Zhanyun - Black carbon and triclosan

Tom & Miriam - Flame retardants and flammability standards

I'm looking forward to this discussion.

Best,

Tom

Join Zoom Meeting

<https://us02web.zoom.us/j/86305077009>

Meeting ID: 863 0507 7009

One tap mobile

+13462487799,,86305077009# US (Houston)

+16468769923,,86305077009# US (New York)

Phone

+1 346 248 7799 US

Meeting ID: 863 0507 7009

Find your local number: <https://us02web.zoom.us/j/86305077009>

--

Tom Bruton, PhD

Senior Scientist

Green Science Policy Institute

tom@greensciencepolicy.org

~~510-898-1739~~

I am working remotely until further notice. My cell is 773-628-4452.

The Green Science Policy Institute provides unbiased scientific information to government, industry, and non-governmental organizations to facilitate more informed decision-making about chemicals used in consumer products in order to protect health and environment worldwide.

On Wed, Aug 26, 2020 at 4:29 PM Tom Bruton <tom@greensciencepolicy.org> wrote:

Dear all,
Thanks for another productive call on essentiality today.
Most of our discussion made it into the draft paper outline, [here](#).

Our next call is tentatively scheduled for Thursday, Sept. 17th at 9 AM pacific. Please let me know if that time does not work for you. If several people are unavailable then we can look at other times.

Those of us who spoke today all volunteered to begin writing bullets or paragraphs. The list of who volunteered for what is below. If you couldn't make it today and would like to help out with writing before the next call, please let me know.

Pam - Stockholm Convention
Anna - California Safer Consumer Products and Minamata Convention
Becky - California Safer Consumer Products
Andy - Introduction
Liz - Montreal Protocol
Zhanyun - Black carbon and triclosan
Tom - flame retardants and flammability standards

Take care,
Tom

--

Tom Bruton, PhD
Senior Scientist
Green Science Policy Institute
tom@greensciencepolicy.org
~~510-898-1739~~

I am working remotely until further notice. My cell is 773-628-4452.

The Green Science Policy Institute provides unbiased scientific information to government, industry, and non-governmental organizations to facilitate more informed decision-making about chemicals used in consumer products in order to protect health and environment worldwide.

On Wed, Aug 19, 2020 at 9:59 AM Tom Bruton <tom@greensciencepolicy.org> wrote:

Hello everyone,
Let's hold our next call to discuss the paper on essentiality next Wednesday, Aug. 26 at 9AM PDT / noon EDT / 6PM CEST. I realize it has been awhile since you all filled out the scheduling poll, but hopefully that time will still work for most.
We can take a fresh look at the [short outline](#) we developed last time and try to get to a point where we can divvy up writing tasks.
I'm looking forward to speaking with you.
Best,
Tom

Join Zoom Meeting
<https://us02web.zoom.us/j/89342981611>

Meeting ID: 893 4298 1611
One tap mobile
+16699006833,,89342981611# US (San Jose)
+12532158782,,89342981611# US (Tacoma)

Phone

1 669 900 6833 US

Meeting ID: 893 4298 1611

Find your local number: <https://us02web.zoom.us/j/kdIIxLU5JN>

--

Tom Bruton, PhD

Senior Scientist

Green Science Policy Institute

tom@greensciencepolicy.org

~~510-898-1739~~

I am working remotely until further notice. My cell is 773-628-4452.

The Green Science Policy Institute provides unbiased scientific information to government, industry, and non-governmental organizations to facilitate more informed decision-making about chemicals used in consumer products in order to protect health and environment worldwide.

On Sat, Aug 1, 2020 at 7:16 AM Tom Bruton <tom@greensciencepolicy.org> wrote:

Hi everyone,

Thanks for a thought-provoking discussion on Thursday. As Zhanyun points out, I think the idea we've hit upon is a timely one. To recap for folks who couldn't make it this week, our plan is to write a paper discussing the concept of essentiality for chemicals beyond PFAS. We'll use bad and good case studies to explain how it has been implemented in the past and how it could be implemented more strongly in the future.

Here are my notes from the call: [link](#). Please take a look, correct anything I've misconstrued, and add anything I missed. New thoughts are welcome too.

We'll aim to talk again the week of August 24th. Please fill out [this Doodle poll](#) by the end of next week and we'll find a time that works.

Have a great August!

Tom

--

Tom Bruton, PhD

Senior Scientist

Green Science Policy Institute

tom@greensciencepolicy.org

~~510-898-1739~~

I am working remotely until further notice. My cell is 773-628-4452.

The Green Science Policy Institute provides unbiased scientific information to government, industry, and non-governmental organizations to facilitate more informed decision-making about chemicals used in consumer products in order to protect health and environment worldwide.

On Fri, Jul 31, 2020 at 10:31 AM Miriam Diamond <miriam.diamond@utoronto.ca> wrote:

Thanks! And good discussion yesterday!

On 7/31/2020 12:49 PM, Wang Zhanyun (IfU, ESD) wrote:

Dear All,

Many thanks for the discussion yesterday. Coincidentally, ACC just released some article on the essentiality of (brominated) flame retardants in EEE (<https://www.mindthescience.org/chemicals->

in-products/flame-retardants), including using codes and standards as justification for essentiality. So I think our paper will be a timely contribution. Have a good weekend!

Best regards,
Zhanyun

On 25 Jul 2020, at 01:41, Tom Bruton <tom@greensciencepolicy.org> wrote:

Hello everyone,
Let's plan to hold our next working group call on Thursday, July 30th, at 9AM PDT / noon EDT / 6PM CEST. We'll discuss how the concept of essential uses can be applied to groups of chemicals beyond PFAS.
I look forward to talking with you then.
Best,
Tom

Join Zoom Meeting
<https://us02web.zoom.us/j/260134160?pwd=UjBHNGgramNOWU1FMWpUZjVqcZy3dz09>

Meeting ID: 260 134 160
Password: GSP2020

One tap mobile
+16699006833,,260134160# US (San Jose)

Phone
+32 (0)2 588 4188 (Belgium)
+1 778 907 2071 (Canada)
+44 203 481 5240 (UK)
+1 669 900 6833 US (US)
+46 850 539 728 (Sweden)
+41 43 210 71 08 (Switzerland)
Find your local number: <https://us02web.zoom.us/u/kZh7qzYhS>

--
Tom Bruton, PhD
Senior Scientist
Green Science Policy Institute
tom@greensciencepolicy.org
~~510-898-4739~~

I am working remotely until further notice. My cell is 773-628-4452.

The Green Science Policy Institute provides unbiased scientific information to government, industry, and non-governmental organizations to facilitate more informed decision-making about chemicals used in consumer products in order to protect health and environment worldwide.

On Wed, Jul 22, 2020 at 5:25 PM Tom Bruton <tom@greensciencepolicy.org> wrote:

Good! I'm glad there is interest in the idea of writing something on essentiality beyond PFAS.

Here is a scheduling poll for next week: <https://doodle.com/poll/5enb3rhfn7hcazxw>. Please respond by Friday afternoon.

Thank you.

Tom

--

Tom Bruton, PhD
Senior Scientist
Green Science Policy Institute
tom@greensciencepolicy.org
~~510-898-1739~~

I am working remotely until further notice. My cell is 773-628-4452.

The Green Science Policy Institute provides unbiased scientific information to government, industry, and non-governmental organizations to facilitate more informed decision-making about chemicals used in consumer products in order to protect health and environment worldwide.

On Wed, Jul 22, 2020 at 7:40 AM Lindstrom, Andrew
<Lindstrom.Andrew@epa.gov> wrote:

Tom,

Thank you very much for giving us a chance to regroup on this important topic.

I am very happy to be involved with this new effort.

Andy

From: Tom Bruton <tom@greensciencepolicy.org>
Sent: Tuesday, July 21, 2020 8:25 PM
To: Miriam Diamond <miriam.diamond@utoronto.ca>; Wang Zhanyun (IfU, ESD) <zhanyun.wang@ifu.baug.ethz.ch>; Lindstrom, Andrew <Lindstrom.Andrew@epa.gov>; Rebecca Sutton <rebeccas@sfei.org>; Liz Harriman <liz@turi.org>; pamela@akaction.org; DeWitt, Jamie <DEWITTJ@ecu.edu>; Seth Fernandez <seth@greensciencepolicy.org>; Gretta Goldenman <g.goldenman@milieu.be>; Dave Andrews <dandrews@ewg.org>
Cc: Arlene Blum <arleneb@lmi.net>
Subject: Six Classes Retreat working group next steps

Dear Six Classes Retreat working group,

We lost momentum after our last call, but I'm writing now in hopes that we can find our footing again. Thanks to all of you for sending me your thoughts about

which direction we should take the working group. There was no clear consensus: some of you are more interested in persistence, and others favored working on essentiality.

After considering your comments, my suggestion is that we focus on applying the concept of essentiality to chemicals other than PFAS. I think this will be the simplest way to avoid any more turf issues. How does that sound? If that idea is appealing then I'll make another scheduling poll and we can meet to discuss it further.

A couple of you requested that we limit participation to those who were at the retreat (at least for now). I think we should make an exception to that rule for Anna Reade of NRDC, who was supposed to be at the retreat but had to cancel at the last minute because of a childcare issue. Please let me know if you object to that.

In that same spirit, please don't forward messages to those outside this working group without clearing it with everyone.

You all are a remarkable group and I appreciate your energy and enthusiasm for this project.

Best,

Tom

--

Tom Bruton, PhD

Senior Scientist

Green Science Policy Institute

tom@greensciencepolicy.org

~~510-898-1739~~

I am working remotely until further notice. My cell is 773-628-4452.

The Green Science Policy Institute provides unbiased scientific information to government, industry, and non-governmental organizations to facilitate more informed decision-making about chemicals used in consumer products in order to protect health and environment worldwide.

Miriam Diamond

Professor

Department of Earth Sciences

University of Toronto

22 Russell Street

Toronto, Ontario, CANADA M5S 3B1

Tel: 01-416-978-1586

miriam.diamond@utoronto.ca

Diamond Environmental Research Group